ADEQ Arizona Department of Environmental Quality

DRAFT FACT SHEET

ARIZONA POLLUTANT DISCHARGE ELIMINATION SYSTEM (AZPDES)

This document gives pertinent information concerning the reissuance of the AZPDES permit listed below. This facility is a large concentrated animal feeding operation (CAFO), and thus is considered to be a minor facility under the NPDES program. The effluent limitations contained in this permit will maintain the Water Quality Standards listed in Arizona Administrative Code (A.A.C.) R18-11-101 et. seq. This permit is proposed to be issued for a period of 5 years.

Permittee's Name:	JBS Five Rivers Cattle Feeding LLC
Permittee's Mailing Address:	1770 Promontory Circle Greeley, CO 80634
Facility Name:	McElhaney Feedyard
Facility Address or Location:	34673 E. County 9th St. Wellton, AZ 85356
County:	Yuma
Contact Person(s): Phone/e-mail address	Tom McDonald (970) 475-6848
AZPDES Permit Number:	AZ0026115
Inventory Number:	511151

I. STATUS OF PERMIT(s)	
AZPDES permit applied for:	Renewal
Date application received:	**10/2/17**
Date application was determined administratively complete:	10/2/17
Previous permit expiration date:	4/8/18
208 Consistency: 208 Plan consistency is not required for industrial facilities.	

II. GENERAL FACILITY INFORMATION	
Type of Facility:	Concentrated animal feeding operation
Facility Location Description:	4.7 mile east of Wellton, Arizona
Nature of facility discharge:	JBS stables or confines approximately 150,000 cattle and 100 horses and is defined as a large CAFO per R18-9-A901(15). The facility generates approximately 140,432 tons or 34,000,000 gallons of manure, litter, and wastewater annually. On-site process drainage is contained in three holding ponds (Mill Pond, Northeast (NE) Pond, and Northwest (NW) Pond) with a storage capacity of 33,000,000 gallons. JBS also operates a 158-acre parcel of farm land with two fields for nutrient management which is in close proximity to the NE and NW Ponds.

III. RECEIVING WATER	
The State of Arizona has adopted water quality standards to protect the designated uses of its surface waters. Streams have been divided into segments and designated uses assigned to these segments. The water quality standards vary by designated use depending on the level of protection required to maintain that use.	
Receiving Water :	Wellton Canal
River Basin:	Colorado – Lower Gila River Basin
Site Location(s):	Township 8S, Range 18W, Section 36 Latitude 32˚ 41’ 29” N, Longitude 114˚ 03’ 23” W
The discharge may reach, a surface water listed in Appendix B of A.A.C. Title 18, Chapter 11, Article 1.	
Designated uses for the receiving water listed above:	Agricultural Irrigation (AgI) Agricultural Livestock watering (AgL) Domestic Water Supply (DWS)
Is the receiving water on the 303(d) list?	No, and there are no TMDL issues associated.
Given the uses stated above, the applicable narrative water quality standards are described in A.A.C. R18-11-108, and the applicable numeric water quality standards are listed in A.A.C. R18-11-109 and in Appendix A thereof. There are two standards for the Aquatic and Wildlife uses, acute and chronic. In developing AZPDES permits, the standards for all applicable designated uses are compared and limits that will protect for all applicable designated uses are developed based on the standards.	

IV. DESCRIPTION OF OPERATION

The facility operation generates approximately 104.11 acre feet (34,000,000 gallons) of process wastewater per year. Solid manure is deposited on the feedyard pen surface by the cattle and harvested by dozers and loaders onto trucks for transport to manure storage areas prior to composting. The composted manure is conveyed to third party farmers for land application off site. Process wastewater is generated when precipitation falling on the feedyard surface produces runoff. The runoff is directed via conveyance ditches to one of the three runoff control structures (RCS): Mill Pond, NE Pond, and NW Pond. The RCS are designed and constructed to contain the runoff produced by the 25-year, 24-hour rainfall event and have a total cobined capacity of 33.2 million gallons. The process wastewater is utilized at the facility through evaporation; dust control on pens, roads, and open spaces; application to manure to adjust moisture during composting; or on a limited basis, land application to designated land management units (LMUs) when necessary after extreme or chronic precipitation events. The RCS have a combined surface area of 11.4 acres. Wastewater is used whenever possible within the production area, and any runoff returns to the RCCS.

Because the wastewater is seldom available for land application, the fields are farmed and managed for conventional crop production. In the event land application of wastewater becomes necessary, it will be done on the two fields (LMUs 1 & 2) in accordance with the site-specific Nutrient Management Plan (NMP). The land application system will be monitored when land application is occurring.

Mortalities will not be disposed of in any liquid manure, stormwater, or process wastewater system and will be handled in such way as to prevent the discharge of pollutants to surface water or groundwater. Animals are confined to prevent direct contact with surface water. Chemicals are properly stored and will not be disposed of in any manure, litter, process wastewater or stormwater storage or treatment system. Wastewater will not be land applied when the ground is frozen, during rainfall, or when the ground is saturated. Manure, litter, and process wastewater will not be applied closer than 100 feet to any down-gradient surface water, open tile line intake structure, sinkhole, agricultural well head, or other conduits to surface water unless appropriate BMPs are in place. Appropriate best management practices (BMPs) including measures to prevent wastewater from coming into contact with the well heads, and field border berms will be maintained to prevent any flooded wastewater from coming into contact with the well heads. Sampling of plant tissue, soil, manure, and wastewater will be conducted as necessary in accordance with the sampling protocols described in the NMP.

Land Application Protocols

JBS will sample each crop tissue harvested on land management units (LMUs) fertilized with manure or effluent to determine the nutrients removal rate for the subsequent year's nutrient management planning. Manure sampling will be conducted annually at the feedyard and may include total nitrogen, organic nitrogen, urea and ammonium nitrogen, nitrate-N, calcium, phosphorus, magnesium, potassium, sulfur, zinc, iron, manganese, copper, boron, moisture, organic matter, ash, carbon and nitrogen ratio, electrical conductivity, pH, and total salts. When dewatering of the RCS, a wastewater sample prior to dewatering will be collected according to the sampling protocol submitted in the application, and additional samples should be taken for every 5 million gallons of wastewater pumped. The sample results will be used as an indicator of what is being land applied. The wastewater samples may be analyzed for total keljdahl nitrogen (TKN), phosphorus, pH, urea/ammonium-N, potassium, and soluble salts.

A soil analysis will be conducted in each field prior to receiving the first application of manure or wastewater. These soil analyses will be used to calculate planned wastewater application rates. Any field that does not have a soil analysis for the current crop year will be sampled prior to any application of wastewater or manure. Each crop analysis may include organic matter, soil pH, soluble salts, cation exchange capacity, electrical

conductivity, calcium, phosphorus, magnesium, potassium, sulfur, zinc, iron, manganese, copper, sodium and nitrate-N.

JBS may apply a starter fertilizer at planting to improve the production potential of the crops. Subsequently, JBS can determine the total crop nutrient requirement as the historical crop nitrogen removal plus any starter fertilizer. Fields that may receive wastewater or manure include LMUs 1 & 2. These fields' basis for nutrient application will be assessed using the most recent soil analysis for that field based on the protocol specified in the Arizona Natural Resources Conservation Service (NRCS) Nutrient Management (Code 590). This basis for nutrient application will then be used in the following year's application rate per LMU.

V. STATUS OF COMPLIANCE WITH THE EXISTING AZPDES PERMIT	
Date of most recent inspection:	October 17, 2017. No potential violations were noted as a result of this inspection.
NOVs issued:	None
NOVs closed:	N/A
Compliance orders:	None

VI. DETERMINATION OF EFFLUENT LIMITATIONS and ASSESSMENT LEVELS

Discharge of manure, litter, or process wastewater into waters of the U.S from the production and land application areas is prohibited except as provided in the permit. Based on the requirements of 40 CFR Parts 122.42(e) and 412 Subpart C, incorporated by reference in 18 A.A.C. Chapter 9, Article 9, compliance with the technology-based limitations described below is considered sufficient to control the discharge of pollutants into waters of the U.S., and therefore no numeric or water quality-based limitations are included in the draft permit.

Technology-based Limitations: As outlined in 40 CFR Parts 122.42(e) and 412 Subpart C

The regulations found at 40 CFR 412 Subpart C for existing CAFOs within the cattle sector specify that there must be no discharge of manure, litter, or process wastewater pollutants into waters of the U.S. unless the production area is designed, constructed, operated and maintained to contain all manure, litter and process wastewater including the runoff and the direct precipitation from a 25-year, 24-hour rainfall event; and the production area is operated in accordance with the additional measures and records required by 40 CFR 412.37(a) and (b).

Implementation and consistent maintenance of the site-specific terms of the Nutrient Management Plan (NMP), Best Management Practices (BMPs), and additional measures are required by 122.42(e) and 412.37 for both the CAFO production area and land application areas to control the discharge of pollutants; these are established as technology-based limitations in the permit. There are no numeric technology-based limitations applicable to CAFOs.

Narrative Water Quality Standards (Part I of Permit):

The permittee is required to control discharges as necessary to not cause or contribute to an exceedance of the applicable water quality standards. ADEQ expects that compliance with the other conditions in the permit (e.g., the implementation and consistent maintenance of the site-specific terms of the Nutrient Management Plan (NMP), Best Management Practices (BMPs), etc.) will result in discharges that are controlled as necessary to not cause or contribute to an exceedance of the applicable water quality standards in the receiving water body. If the permittee becomes aware, or ADEQ determines, that the discharge causes or contributes to an exceedance of a water quality standard, corrective actions and ADEQ notification are required. If necessary, ADEQ may reopen the permit to impose additional, more stringent water quality-based requirements.

The proposed permit limits were established using a methodology developed by EPA. Long Term Averages (LTA) were calculated for each designated use and the lowest LTA was used to calculate the average monthly limit (AML) and maximum daily limit (MDL) necessary to protect all uses. This methodology takes into account criteria, effluent variability, and the number of observations taken to determine compliance with the limit and is described in Chapter 5 of the TSD. Limits based on A&W criteria were developed using the "two-value steady state wasteload allocation" described on page 99 of the TSD. When the limit is based on human health criteria, the monthly average was set at the level of the applicable standard and a daily maximum limit was determined as specified in Section 5.4.4 of the TSD.

VII. MONITORING AND REPORTING REQUIREMENTS (Part II of Permit)

Section 308 of the Clean Water Act and 40 CFR Part 122.44(i) require that monitoring be included in permits to determine compliance with permit limitations. Additionally, monitoring is required to evaluate the effectiveness of BMPs including the site-specific NMP. The permittee has the responsibility to determine that all data collected for purposes of this permit meet the requirements specified in this permit and that the samples are collected, analyzed, and properly reported to ADEQ.

The requirements in the permit pertaining to Part III, Monitoring and Reporting, are included to ensure that the monitoring data submitted under this permit is accurate in accordance with 40 CFR 122.41(e).
The permit (Part III, Sections A and B) specifies sample collection and analysis requirements, including quality assurance/quality control requirements, for both discharge monitoring and agricultural testing.

Recordkeeping and reporting requirements are detailed in Part III, Sections C, D, E and F of the permit. These include submittal of an annual report. Requirements for retention of monitoring records are detailed in Part III, Sections C and D of the permit.

Electronic reporting. The Federal electronic reporting rule requires permittees to make electronic submittals of any monitoring reports and forms called for in their permits. ADEQ will provide advance notification about specific requirements and procedures for electronic reporting before these requirements take effect.

VIII. SPECIAL CONDITIONS (Part V in Permit)

Permit Reopener

This permit may be modified based on newly available information; to add conditions or limits to address demonstrated effluent toxicity; to implement any EPA-approved new Arizona water quality standard; or to re-evaluate reasonable potential (RP), if assessment levels in this permit are exceeded [A.A.C. R18-9-B906 and 40 CFR Part 122.62 (a) and (b)].

IX. ANTIDEGRADATION

Antidegradation rules have been established under A.A.C. R18-11-107 to ensure that existing surface water quality is maintained and protected. The discharge from the JBS facility will be to a canal with Tier 1 antidegradation protection. Technology-based limitations, BMPs, and site-specific NMP requirements are established in the permit to minimize the discharge of pollutants to a water of the U.S. Discharges will only occur in response to precipitation events exceeding the capacity of the containment structures designed for the 25-year, 24-hour storm event. As long as the permittee maintains consistent compliance with these provisions, the designated uses of the receiving water will be presumed protected, and the facility will be deemed to meet currently applicable antidegradation requirements under A.A.C. R18-11-107(C).

X. STANDARD CONDITIONS

Conditions applicable to all NPDES permits in accordance with 40 CFR, Part 122 are attached as an appendix to this permit.

XI. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-A907)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft AZPDES permit or other significant action with respect to an AZPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-A908)

Rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-A908(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

EPA Review (A.A.C. R18-9-A908(C))

A copy of this draft permit and any revisions made to this draft as a result of public comments received will be sent to EPA Region 9 for review. If EPA objects to a provision of the draft, ADEQ will not issue the permit until the objection is resolved.

XII. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – AZPDES Individual Permits Unit
Attn: Richard Mendolia
1110 West Washington Street
Phoenix, Arizona 85007

Or by contacting Richard Mendolia at (602) 771 – 4374 or by e-mail at rjm@azdeq.gov.

XIII. INFORMATION SOURCES

While developing effluent limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

1. AZPDES Permit Application Forms 1 and 2B, received October 2, 2017, along with supporting data, facility diagram, and maps submitted by the applicant with the application forms.

2. ADEQ files on the McElhaney Feedyard.

3. ADEQ Geographic Information System (GIS) Web site

4. Information provided to ADEQ staff during a site visit to the future facility location on October 17, 2017.

5. USDA Nature Resources Conservation Service, Conservation Practice Standard, Arizona, *NUTRIENT MANAGEMENT (acre) CODE 590*, dated May 2012.

6. A.A.C. Title 18, Chapter 9, Article 9. *Arizona Pollutant Discharge Elimination System* rules.

7. Code of Federal Regulations (CFR) Title 40:
   Part 122, *EPA Administered Permit Programs: The National Pollutant Discharge Elimination System.*
   Part 124, *Procedures for Decision Making*.
   Part 412. *Technical Standards for the Concentrated Animal Feeding Operations (CAFO) Point Source Category*

8. U.S. EPA NPDES Permit Writers' Manual for Concentrated Animal Feeding Operations, February 2012.

9. U.S. EPA NPDES Permit Writers' Manual, September 2010.